

Mexican Mayflies: New Species, Descriptions and Records (Ephemeroptera)

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A mayfly collection from southern Mexico sent to the author by Dr. Joaquín Bueno Soria has revealed undescribed stages and new distributional records. Types of the new species are deposited in the California Academy of Sciences, San Francisco.

Baetis buenoi Allen, NEW SPECIES

Male imago (in alcohol). —Length: body 2.0–3.0 mm; wings 2.5–3.5 mm. Head brown; antennae light brown; lower portion compound eyes black, upper portion brown; turbinate portion moderately long and upper surface elongate oval. Thorax brown; legs light brown; wings hyaline; venation pale, translucent; hind wing with well developed hooked costal projection; hind wing with 2 longitudinal veins, no intercalaries or cross veins. Abdominal segments 1–6 pale, translucent, segments 7–10 brown. Genital forceps of the *intercalaris*-type. Cerci absent.

Types. —HOLOTYPE. Male imago, 20 km. despues de Ciudad Valles a San Luis Potosi, México, 19-III-80, Padilla et al. ALLOTYPE. Female imago, same data as holotype. PARATYPE. Male imago (parts on slide) same data as holotype.

Remarks. —*Baetis buenoi*, n. sp. is the first species of the genus to be described from southern Mexico. Three species are presently known from Central America and one has been described from northern Mexico. Eaton (1892) described and named *B. salvini* based on male imagoes from Costa Rica and Guatemala, and Kimmins (1934) named *B. eatoni* from a long series he found in Eaton's collection from north Sonora, Mexico. Navas (1924) described and named *B. sinuosus* from a male imago collected in Costa Rica, and Flowers (1979) described *B. maculipennis* from a male imago and a mature nymph collected in Panama.

Baetis salvini and *B. maculipennis* are large species, almost twice as long as the average *Baetis*, and they are distinguished from *B. buenoi* by this large body size and by other morphological characters. *Baetis sinuosus* is smaller in body size than *B. buenoi*, it differs in color, and the hind wing has a short straight costal projection, 3 longitudinal veins, and a cross vein. *Baetis eatoni* is geographically isolated from *B. buenoi*, and it also differs in abdominal color characters and in hind wing venation.

Iron metlacensis Traver

New records. —Mexico. Zempoala, 15-III-80, J. Bueno and J. Padilla. Veracruz. La Perla, 10-XII-79, M. Rivera and J. Padilla.

Thraulodes lunatus Traver & Edmunds

New record. —Hidalgo. Rio Venados, 29-III-79, P. Carter and J. Padilla.

Thraulodes ehippiatus Traver & Edmunds ?

Thraulodes ehippiatus was described from a single male imago collected in Chiapas, Mexico. The nymph described below was also collected in Chiapas and it is similar to the male holotype in the color of the thorax and abdomen. It seems prudent at this time to assign this specimen, and the other nymphs, as the immature stage of this species.

Mature nymph. —Length: body 6.5–7.5 mm; caudal filaments 8.5–9.5 mm. General color dark brown with pale markings. Head brown, pale paired submedian maculae on posterior margin between compound eyes. Prothoracic notum dark brown to light brown with pale paired submedian maculae on anterior margin; metathoracic notum dark brown with paired submedian maculae, wing pads pale; prothoracic leg (others missing) pale with saddle-shaped brown macula; tibia and tarsus light brown; claw with 5 denticles. Abdominal terga dark brown, terga 4–9 with pale median maculae; gills symmetrical, narrow, length-to-width ratio 7:1; gills without lateral trachea; gills suffused with black. Caudal filaments pale with dark brown annulations.

Material. —Three nymphs, Rta. Palenque-Bonan pak. to 65 km from Palenque, Chiapas, México, 23-V-80, J. Bueno.

Remarks. —These nymphs belong to the *gonzalesi*-group. Keying these nymphs herein assigned as *T. ehippiatus* in the nymphal revision by Allen and Brusca (1978) one ends at an impass at the end of the key. These nymphs are readily distinguished from all previously described nymphs by the distinctive thoracic and abdominal color patterns.

Traverella sp. "C" Allen

New record. —Chiapas. Rta. Palenque-Bonam pak. to 65 km from Palenque, 23-V-80, J. Bueno.

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